**FEDERAL COMMUNICATIONS COMMISSION**
**Washington, D.C. 20554**

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| In the Matter of<br><br>Updating the Intercarrier Compensation Regime to Eliminate Access Arbitrage | )<br>)<br>)<br>)<br>)<br>) | WC Docket No. 18-155 |

**COMMENTS OF T-MOBILE USA, INC.**


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**SUMMARY**

As a carrier committed to providing the highest quality service possible, T-Mobile shares the Commission's goal of eliminating arbitrage opportunities from the intercarrier compensation system. However, T-Mobile advises caution as the Commission crafts rules to discourage access stimulation and other forms of arbitrage or fraud. Specifically, the Commission should focus on arbitrage schemes that have caused demonstrable harm to the public, such as a proliferation of robocalling, spoofing, ghost traffic and other types of fraudulent calls, which annoy consumers and degrade the network. T-Mobile also urges the Commission to recognize all sources of arbitrage, including intermediate access providers on the originating side of calls, and address them with appropriately tailored solutions. The Commission should not legitimize baseless accusations about T-Mobile's interconnection decisions made by parties seeking to gain an unfair advantage in the market. Furthermore, the Commission should refrain from imposing a broad direct connect requirement or taking any other action that would have the effect of creating more opportunities for arbitrage, undermining important tools for combatting robocalling and other types of fraudulent calls, duplicating the failures of an outdated Public Switched Telephone Network, or stalling the completion of the IP transition.

The Commission instead should facilitate the transition to an IP network designed according to sound engineering and design principles. The Commission could do so by adopting T-Mobile's "Safe Harbor POI Solution," which calls for the establishment of no more than eight to ten POIs across the nation where all service providers could interconnect directly or indirectly with all other service providers. This approach would promote workable, lasting principles for network management that prioritize the public interest and permanently resolve many of the problems this proceeding seeks to address.

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**COMMENTS OF T-MOBILE USA, INC.**

T-Mobile USA, Inc.[1] ("T-Mobile") commends the Federal Communications Commission ("FCC" or "Commission") for initiating this proceeding[2] to address practices that harm consumers and delay the transition to Internet-Protocol based interconnection, networks, and services (the "IP Transition"). T-Mobile is committed to providing the best customer experience possible,[3] which includes taking the steps necessary to protect our subscribers from consumer harm caused by arbitrage, robocalling, spoofing, ghost traffic and other types of fraudulent calls. The Commission can help us and other carriers further improve the customer experience by adopting targeted rules to end certain arbitrage schemes that harm the public and interfere with our efforts to improve service for consumers. In seeking to protect the public, however, the Commission should reject any proposal that could have unintended consequences or impede competition, especially proposals that would undermine efforts to combat robocalling and other types of fraudulent calls. In this proceeding, as in past proceedings, we respectfully ask the Commission to ensure that its rules promote competition and fairness, and empower the nation's

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1 T-Mobile USA, Inc. is a wholly-owned subsidiary of T-Mobile US, Inc., a publicly-traded company.

2 *Updating the Intercarrier Compensation Regime to Eliminate Access Arbitrage*, Notice of Proposed Rulemaking, WC Docket No. 18-155, FCC 18-68 (rel. June 5, 2018) (*Access Arbitrage NPRM* or *NPRM*).

3 *See* Press Release, T-Mobile US, Inc., T-Mobile Celebrates 5 Years as a Public Company with Record-Low Churn, Industry-Leading Customer Growth, and Strong Profitability (March 31, 2018), http://investor.t-mobile.com/Cache/1001236268.PDF?O=PDF&T=&Y=&D=&FID=1001236268&iid=4091145.

wireless carriers to continue delivering the innovative services that today's consumers need and want.

Rather than protecting the public interest, some of the measures proposed in this proceeding would harm consumers by exacerbating the scourge of robocalling, spoofing, fraud and other practices that generate revenue through the origination of billions of calls that nobody wants to receive. For this reason, the Commission should focus not only on the practices of intermediate carriers with respect to terminating traffic, but also on their practices with respect to originating traffic—particularly those which lead to more robocalling, spoofing, and other types of fraudulent calls that infuriate the public.

The Commission should also reject any measure that could impede competition or delay the IP Transition. Prioritizing the IP Transition would not only eliminate the cause and incentive for the types of arbitrage and interconnection disputes at issue here, but also enable the full range of benefits that the IP Transition make possible, including, for example, (a) lower service costs; (b) substantially better call quality and higher network speeds; (c) dramatic reduction in potential sources of network failure; and (d) far higher reliability and resiliency in networks that support critical infrastructure. Effectively treating the underlying causes of public harm by expediting the IP Transition would lead to far better outcomes than continuing merely to react to the symptoms of arbitrage, fraud and misaligned economic incentives on an *ad hoc* basis, which frequently leads to unintended consequences that further harm the public.

## I. **The Commission Should Focus on Arbitrage Schemes that Harm the Public Rather Than Baseless Allegations Made To Gain an Unfair Competitive Advantage**

While most parties in this proceeding have rightly focused on how the Commission can eliminate arbitrage schemes that harm the public and delay the IP Transition, a few parties are trying to leverage the regulatory process to gain an unfair competitive advantage, including some like Peerless and O1 who have repeatedly made baseless accusations against T-Mobile and Inteliquent.[4] T-Mobile and Inteliquent have directly refuted their baseless accusations in filings on the record,[5] and T-Mobile has sought to focus on the real issues at stake in this proceeding rather than continuing to dignify the patently false and grossly misleading claims. Nonetheless, at the Commission's request, T-Mobile provides the following additional information.

Peerless, O1 and other parties are urging the Commission to require all carriers, including competitive providers of mobile services like T-Mobile, to connect directly upon the request of any other party.[6] T-Mobile has made clear to all carriers and the Commission, including on the record in this proceeding,[7] that T-Mobile will interconnect directly with any carrier that: (a) exchanges a sufficient volume of traffic with T-Mobile to justify the cost of a direct connection; (b) seeks to exchange traffic attributable to their own end user customers; (c) wants to exchange traffic on a bill-and-keep basis; and (d) is willing to split the cost of an economically efficient direct connection. Because Peerless and O1 generate revenues by seeking to terminate calls originated by other service providers (or generators of calls) rather than their own end user customers ("Wholesale Traffic"), they do not seek to exchange traffic attributable to their own end users ("Retail Traffic"). As discussed in more detail below, T-Mobile's requirement that

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4 *See* Comments of Peerless Network, Inc. et al., WC Docket No. 10-90, CC Docket No. 01-92 filed Oct. 26, 2017) (Peerless, et al. *Refresh-the-Record PN* Comments); *see also,* Reply Comments of Peerless Network, Inc. et al., WC Docket No. 10-90, CC Docket No. 01-92 (filed Nov. 20, 2017) (Peerless, et al. *Refresh-the-Record PN* Reply Comments); *see also* Letter from Philip J. Macres, Klein Law Group, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 10-90 & 07-135, CC Docket No. 01-92 (dated Dec. 20, 2017) (*Dec. 20 Peerless Ex Parte*).

5 Letter from Todd D. Daubert, Counsel to T-Mobile USA, Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 10-90. 07-135, CC Docket No. 01-92 (filed Jan. 15, 2018) (T-Mobile *Ex Parte*); Letter from Matthew S. DelNero, Counsel to Inteliquent, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-155 (filed June 1, 2018) (Inteliquent *Ex Parte*).

6 Peerless, et al. *Refresh-the-Record PN* Comments at 13; Letter from Timothy M. Boucher, Associate General Counsel, CenturyLink to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-155 at 3 (filed May 21, 2018) (CenturyLink May 21 *Ex Parte*).

7 T-Mobile *Ex Parte* at 2.

carriers send it only Retail Traffic is grounded in its experience that a direct connect arrangement for wholesale traffic exposes its customers to an unacceptable level of fraudulent calls, including unwanted robocalling. Thus, this requirement is an important and necessary fraud prevention tool. Accordingly, T-Mobile has elected, pursuant to its explicit right under the Communications Act of 1934, as amended (the "Act"),[8] to interconnect indirectly with Peerless and O1, just as it elects to do with respect to all Wholesale Traffic that any carrier seeks to exchange with T-Mobile.

In an effort to justify a rule that would require T-Mobile to interconnect directly with all requesting carriers (which would abrogate T-Mobile's explicit right to interconnect indirectly with any or all other carriers),[9] Peerless and O1 have repeatedly accused T-Mobile of entering into a revenue sharing arrangement with Inteliquent for the purpose of engaging in arbitrage.[10] These accusations are false.

First, Inteliquent does not provide any "revenue share" or the like to T-Mobile, as Inteliquent has also confirmed on the record.[11] To be clear, the volume of terminating access

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8 *See* 47 U.S.C. 251(a)(1).

9 *Id*.

10 Peerless, et al. *Refresh-the-Record PN* Comments at 15; Peerless, et al. *Refresh-the-Record PN* Reply Comments at 13, note 38; Letter from Philip J. Macres, Klein Law Group, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 10-90 & 07-135, CC Docket No. 01-92 at 3 (dated Dec. 4, 2017); Letter from Michael Singer Nelson, O1 Communications, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 10-90 & 07-135, CC Docket No. 01-92 at 2 (dated Jan. 11, 2018) (O1 Jan. 11 *Ex Parte*). The repetition of a baseless allegation that has been denied on the record by all of the relevant parties cannot create a legitimate basis for consideration of that allegation, Peerless and O1 also appear to be seeking access to T-Mobile's confidential agreement with Inteliquent as the only means for "refuting" their baseless accusations. O1 Jan. 11 *Ex Parte* at 2. However, the Commission should not permit any party gain access to a confidential agreement between third parties merely because the party makes false accusations about the contents of the agreement, particularly when both parties to the agreement have gone on the record to confirm that the accusations, which are fundamentally inconsistent with publicly-available facts, are baseless. This is particularly true in competitive markets where confidential information can easily be abused. *See, e.g.,* Local Access, LLC vs. Peerless Network Inc., No. 6:17-cv-00236-PGB-TBS, Motion to Disqualify and/or Discipline Kelley Drye for Litigation Misconduct, with Incorporated Memorandum of Law (filed June 21, 2018) (alleging that Peerless's counsel used protected confidential information to solicit Local Access's customers).

11 Inteliquent *Ex Parte* at 2.

traffic that is routed through Inteliquent to T-Mobile and, vice versa, from T-Mobile to Inteliquent, has no impact—directly or indirectly—on any type of benefit or compensation that T-Mobile pays to, or receives from, Inteliquent.

Second, T-Mobile does not offer any products or services that encourage its subscribers to generate inbound calls. Indeed, using T-Mobile's services to generate high volumes of inbound—or outbound—calls would violate T-Mobile's terms of service.[12] T-Mobile's customers are individual users of mobile services, not customers who operate chat lines, conference call services, or other types of services or schemes designed to generate high volumes of inbound calls.

Third, T-Mobile has not taken any actions whatsoever to increase the volume of traffic that is routed indirectly through Inteliquent. Today, approximately 75% of all voice traffic originated or received by T-Mobile's customers is exchanged using direct connections between T-Mobile and the carrier whose subscriber is at the other end of the voice traffic (*i.e.*, Retail Traffic), and this percentage is increasing. As Inteliquent has confirmed, a significant volume of traffic originally carried by Inteliquent has migrated to direct connections since T-Mobile designated Inteliquent as its homing tandem.[13] While Inteliquent has proven to be a good partner, T-Mobile would be perfectly happy if nobody ever sought to deliver any Wholesale Traffic to T-Mobile, in which case no terminating access traffic would ever be routed to T-Mobile through Inteliquent. This is hardly the behavior of an arbitrager.

T-Mobile's motivation for working with Inteliquent is straightforward. Every carrier has to designate a homing tandem in the Local Exchange Routing Guide ("LERG"). Traditionally,

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12 T-Mobile, Examples of Permitted and Prohibited Uses of the Service and Your Device, https://www.t-mobile.com/Templates/Popup.aspx?PAsset=Ftr_Ftr_TermsAndConditions&print=true#EPPUSYD (last visited July 19, 2018).

13 Inteliquent *Ex Parte* at 2.

carriers have designated the incumbent local exchange carrier (the "ILEC") as the homing tandem because there were no competitive alternatives. T-Mobile designated Inteliquent as its homing tandem because Inteliquent, unlike the ILECs, offered T-Mobile access to tools for: (a) detecting and deterring unlawful robocalls and other fraudulent traffic, which typically are sent by the perpetrators via, and shifted among, multiple Wholesale Carriers; (b) facilitating the IP Transition by converting traffic received in TDM format to IP format; and (c) improving the overall quality of service. T-Mobile has realized remarkable success in all three areas thanks in part to its working relationship with Inteliquent.

With respect to robocalls, for example, nearly 100% of all robocalls sent to T-Mobile's customers are delivered with Wholesale Traffic: the Retail Traffic sent to T-Mobile's customers contains virtually no robocalls. Indeed, carriers that generate revenues from Wholesale Traffic are responsible for, or are critical enablers of, nearly all arbitrage in the network today, both on the terminating and originating side of calls. Rather than engaging in efficient interconnection and routing practices that confer the greatest benefits to end users, carriers that generate profit from volume without any commitment to real end users frequently engage in harmful schemes to subvert rules and practices designed to protect real end users, including, for example, (a) mileage pumping; (b) tandem hopping; (c) hiding the true nature of their traffic in order to collect charges to which they are not entitled or avoid paying charges they are obligated to pay; and (d) originating huge volumes of traffic in order to generate revenue.[14]

If T-Mobile were to establish direct connections with carriers that seek to exchange Wholesale Traffic,[15] it would be nearly impossible for T-Mobile to identify, and therefore stop,

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[14] *See e.g., CenturyLink Commc'ns, LLC vs. Peerless Network, Inc.*, No. 1:18-cv-03114 (D. Ill. Filed May 1, 2018).

[15] T-Mobile, of course, does not originate any Wholesale Traffic.

the parties who are originating the robocalls. These carriers have no incentive to work with T-Mobile to stop robocalls, because robocalls generate profits for them and they incur no traffic-sensitive costs for delivering the robocalls to T-Mobile. By contrast, when these carriers interconnect indirectly with T-Mobile, they have to route the Wholesale Traffic through a homing tandem and pay the traffic-sensitive charges imposed by the tandem provider, which imposes pricing discipline and creates disincentives for delivering as much traffic as possible regardless of whether it is robocalls or other types of fraudulent traffic. By designating Inteliquent – rather than the ILEC – as the homing tandem, T-Mobile can also rely on the anti-fraud and anti-robocalling tools that Inteliquent offers. The end result of only accepting Wholesale Traffic via indirect connections is that T-Mobile's subscribers enjoy significantly better service and are bombarded with far fewer robocalls and other nuisance calls.[16] The Commission has made it clear that combatting robocalls is its top consumer initiative.[17] Moreover, the Chairman has stressed his interest in revisiting rules that have the "perverse effect of facilitating unlawful and unwanted robocalls."[18] To be effective, such efforts to deter robocalling need to inform every rulemaking before the Commission, not just those where robocalls are the singular focus. The FCC should do all it can to encourage industry efforts to

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[16] *See* Lionsbridge and Shuffle Ventures, Benchmarking the Four Major Carriers to Set the Stage for the Mobile Industry's Next Wave in Privacy at 2 (2018), http://info.lionbridge.com/rs/972-PWS-816/images/Shuffle-Ventures-Lionbridge-Case-Study-2018.pdf?utm_source=case-study&utm_medium=blog-post&utm_campaign=shuffle-ventures&_ga=2.185905513.1396774093.1519420739-357996385.1519420739 (finding that in a study designed to test how effectively carriers identify and protect against unknown and unwanted calls, T-Mobile was able to identify six times as many scam or spam calls as any other carrier).

[17] *See* Federal Communications Commission, The FCC's Push to Combat Robocalls and Spoofing, https://www.fcc.gov/about-fcc/fcc-initiatives/fccs-push-combat-robocalls-spoofing (last visited July 18, 2018) (stating "We know that [robocalls] are a major concern of millions of Americans, and scam calls in particular can result in very real financial losses and serious consumer frustration. We are therefore committed to using every resource in our tool box and working closely with private, public, and international partners to combat unlawful robocalls and spoofing.").

[18] *See* Statement of Chairman Ajit Pai, *Advanced Methods to Target and Eliminate Robocalls*, Report and Order and Further Notice of Proposed Rulemaking, CG Docket No 17-59, FCC 17-151 (2017).

fight robocalling and fraud, particularly since the volume of robocalling is predicted to increase.[19]

Peerless and O1, both of which rely on Wholesale Traffic to generate profit, have also perpetuated demonstrably false claims about Inteliquent's rate-setting practices.[20] Inteliquent's pricing practices are subject to long-standing rate regulations for competitive carriers that provide the same homing tandem services as the ILECs. As such, the rate that Inteliquent charges carriers interconnecting via the tandem is not set "unilaterally" by Inteliquent, and Inteliquent did not, and could not, increase its tandem rates above those benchmarks following the entering of its relationship with T-Mobile in 2015.[21] Although Peerless and O1 may object to paying the just and reasonable costs associated with accepting their Wholesale Traffic, their displeasure does not somehow convert T-Mobile's designation of Inteliquent as its homing tandem provider in the LERG into a form of "arbitrage."

The Commission's specific proposal that would prescribe how access stimulating LECs may connect to interexchange carriers ("IXCs") would not impact T-Mobile because T-Mobile does not qualify as an "access stimulating LEC." The Commission should reject any request to expand the proposal to prohibit the lawful interconnection practices of T-Mobile, which, unlike the arbitrage and unlawful practices engaged in by several carriers that generate profits from

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[19] *See* Tony Romm, *Robo-calls are getting worse. And some big businesses soon could start calling you even more.*, Washington Post (Jul 12, 2018), https://www.washingtonpost.com/technology/2018/07/12/robocalls-are-getting-worse-some-big-businesses-soon-could-start-calling-you-even-more/?utm_term=.00dd9f2a0049.

[20] Jan. 11 O1 *Ex Parte* at 2 (stating that "carriers providing wholesale services (either exclusively or comingled with retail services, such as O1) are effectively forced to route traffic through Inteliquent at rates it unilaterally sets").

[21] Inteliquent *Ex Parte* at 2.

Wholesale Traffic,[22] benefit the public. The interconnection practices of T-Mobile, including its reliance on Inteliquent as its homing tandem, are not only lawful, but also consistent with the Commission's goals of facilitating the IP Transition, creating competition for tandem services, and fighting robocalls, spoofing, ghost and other types of fraudulent traffic. T-Mobile encourages the Commission to remain focused on actual arbitrage and to take care not to eliminate the ability of stakeholders to work with intermediate providers on the terminating side in order to preserve the integrity of their networks, facilitate the IP Transition, and improve the experience of their customers.

## II. The Commission Should Consider Arbitrage and Abuse by Intermediate Carriers on the Originating Side of Traffic Flows When Considering Arbitrage and Abuse by Intermediate Carriers on the Terminating Side of Traffic Flows

The rules proposed in the *NPRM* focus on access arbitrage schemes facilitated by the use of an "intermediate access provider" chosen by terminating LECs, which is defined as "any entity that carries or processes traffic at any point between the final interexchange carrier in a call path and the carrier providing end office access services and, for the purposes of [the immediate] proposal, currently bills for terminating switched access service."[23] However, some of the proposals could exacerbate arbitrage by intermediate providers on the originating side of calls, and thus the Commission should recalibrate its inquiry to consider arbitrage throughout the call path. The following charts illustrate various call scenarios that the Commission should consider when evaluating how best to mitigate harm to the network and end users.

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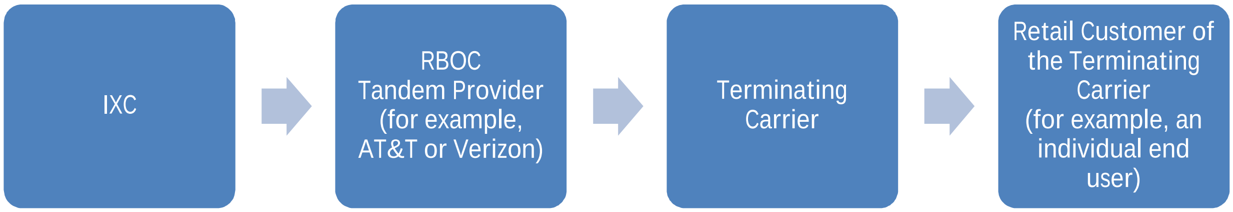
[22] *See, e.g.*, CenturyLink Commc'ns, LLC vs. Peerless Network, Inc., No. 1:18-cv-03114 (D. Ill. Filed May 1, 2018) (alleging that Peerless improperly billed CenturyLink for tandem switching services after Peerless routinely routed calls through both its tandem switch and a third party provider's tandem switch).

[23] *Access Arbitrage NPRM* at ¶12.

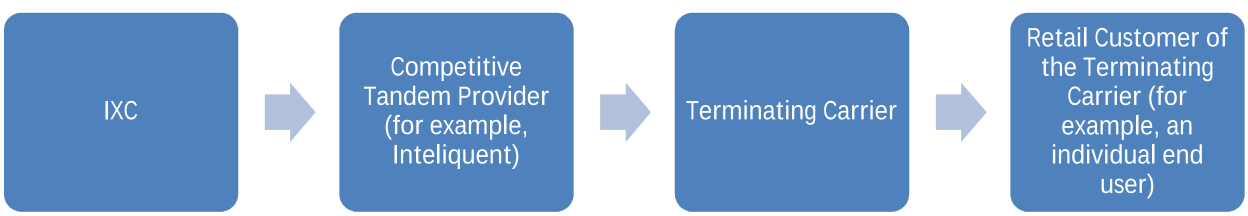
## TERMINATING TRAFFIC

**Traditional Terminating Arrangements**
**Where the Regional Bell Operating Company is the Tandem Provider**



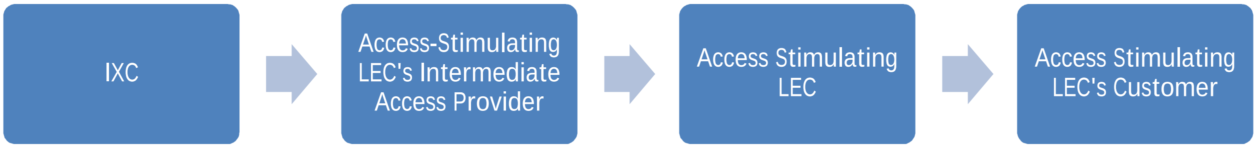

- Under traditional terminating arrangements, the Terminating Carrier (*e.g.*, the LEC or Mobile Provider) serves at the leisure of its retail customers, who are individuals or non-carrier businesses, when receiving calls. These retail customers are the source of revenue arising from the terminated traffic for the Terminating Carrier, who does not need to create any incentive for customers to stimulate inbound traffic.
- IXCs route traffic to the Tandem Provider – in this case the Regional Bell Operating Company ("RBOC") – listed by the Terminating Carrier in the LERG. The Tandem Provider charges lawful rates to generate revenue, sharing none with the Terminating Carrier.
- Tandem providers may generate revenue from inbound traffic in the form of switched access charges, but that charge is for tandem switching and not for any service the LEC would be providing if the LEC were also serving as the Terminating Carrier.
- Wireless Carriers typically do not collect any terminating access charges for calls received over the Public Switched Telephone Network ("PSTN"), except that LEC-affiliated Wireless Carriers benefit indirectly since the calls are routed through those affiliated LECs. In the absence of direct benefits, however, none of the Wireless Carriers engage in behavior designed to encourage higher volumes of inbound traffic.

**Traditional Terminating Arrangements**
**Where The Tandem Provider is a Competitive Carrier**



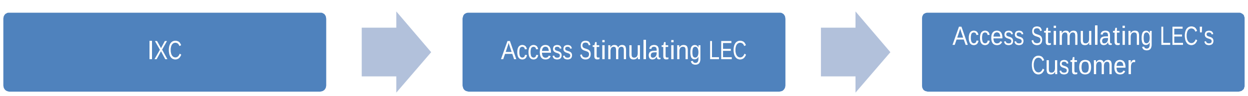

- Congress designed the Act to facilitate competition, and this example illustrates that any terminating carrier (*e.g.*, T-Mobile) can designate any tandem provider (*e.g.*, Inteliquent) without any change to the traditional terminating arrangement, particularly since the competitive tandem provider is subject to the Commission's rate regulations.

**Terminating Traffic Stimulation Schemes: Example 1**



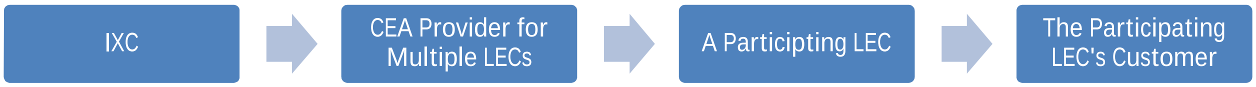

- One common access stimulation scheme involves a Terminating LEC engaging in activities that encourage its customers to stimulate inbound traffic (or the LEC itself generates inbound traffic). The Terminating LEC may or may not have an agreement to share revenue generated by access charges with its customers.
- The Intermediate Carrier creates an arrangement that makes it extraordinarily profitable to terminate calls, including, for example, by: (1) locating in a rural area where the maximum permissible terminating access rate is high because it is set by dividing the projected costs by projected low traffic volumes, which makes terminating high volumes of traffic at those rates extraordinarily profitable; (2) locating far away from the Terminating LEC so that the Intermediate Carrier can generate high mileage charges for transporting the inbound traffic from the Intermediate Carrier to the Terminating Carrier; or (3) both. The Intermediate Carrier and the Terminating LEC often share the terminating access revenue generated by the inbound traffic.
- This arbitrage scheme artificially and unnecessarily increases the costs incurred by end users who originate calls to the customers of the Terminating LEC, and creates incentives for inefficient interconnection (as well as to delay the IP Transition).

**Terminating Traffic Stimulation Schemes: Example 2**




- A variation of the access stimulation scheme illustrated in Example 1 occurs when the Terminating LEC engages in activities that encourage its customers to stimulate inbound traffic (or the Terminating LEC itself generates inbound traffic). The Terminating LEC typically, but not always, shares revenue generated by access charges with its customers in this scenario.
- This time without the assistance of an intermediate provider, the Terminating LEC locates itself in a rural area where the maximum permissible terminating access rate is high or the Terminating LEC may also designate points of interconnection with the IXC that are located far away and then charge for transport on an expensive per mile basis.
- This variation also artificially and unnecessarily increases the costs incurred by end users who originate calls to the customers of the Terminating LEC, and creates incentives for inefficient interconnection (as well as to delay the IP Transition).

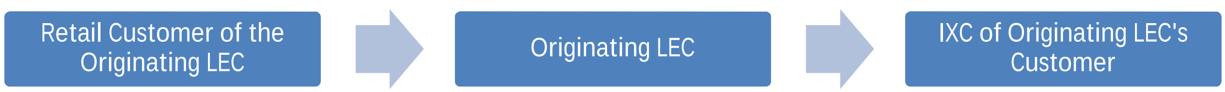
**Terminating Traffic Stimulation Schemes: Example 3**




- Another access stimulation scheme involves the creation by a Centralized Equal Access ("CEA") provider of an arrangement that makes it extraordinarily profitable to terminate calls to participating Terminating LECs, because nobody can reach the participating Terminating LECs unless they go through the CEA.
- The CEA and the Terminating LEC share the revenue generated by the inbound traffic in myriad ways: the simplest is both the CEA and Terminating LEC charge access fees, but there are other forms including revenue share agreements and the pass through of revenue indirectly (*i.e.*, Terminating LEC owning shares of CEA).
- This arbitrage scheme artificially and unnecessarily increases the costs incurred by end users who originate calls to the customers of the Participating LEC, and creates incentives for inefficient interconnection (as well as to delay the IP Transition).

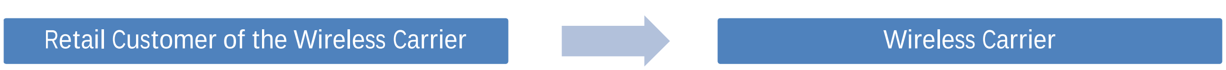
## <u>ORIGINATING TRAFFIC</u>

**Traditional Originating Access Arrangements – Wireline**




- Under traditional wireline service arrangements, the Originating LEC serves at the leisure of its retail customers, who are individuals or non-carrier businesses. The Originating LEC creates no incentives for its customers to stimulate outbound traffic, nor do customers have their own incentive to stimulate traffic.
- Retail customers choose their IXC, and there typically is no direct financial relationship between the Originating LEC and the IXC. In fact, retail customers pay the Originating LEC and the IXC separately. The IXC also pays originating access charges, which are regulated, to the Originating LEC. Again, as paying retail customers, individuals and businesses receive no benefit for originating traffic and have no incentive for relocating for the purpose of generating revenues.

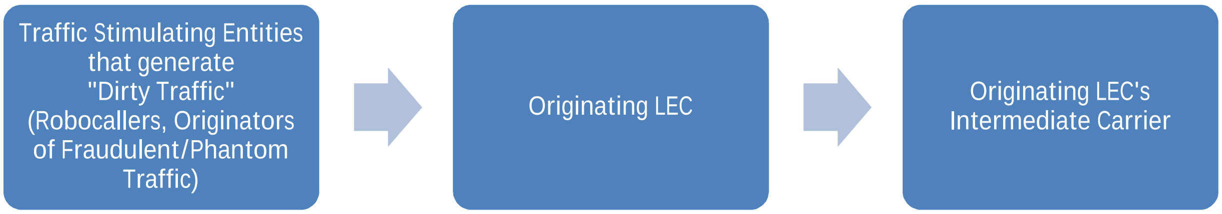
**Traditional Originating Access Arrangements – Wireless**




- Under traditional wireless service arrangements, the Wireless Carriers also serve at the leisure of their retail customers—individuals or non-carrier businesses, and create no incentives for customers to stimulate outbound traffic. Paying retail customers receive no financial benefit for originating traffic, so they have no reason to relocate geographically for the purpose of generating revenue.

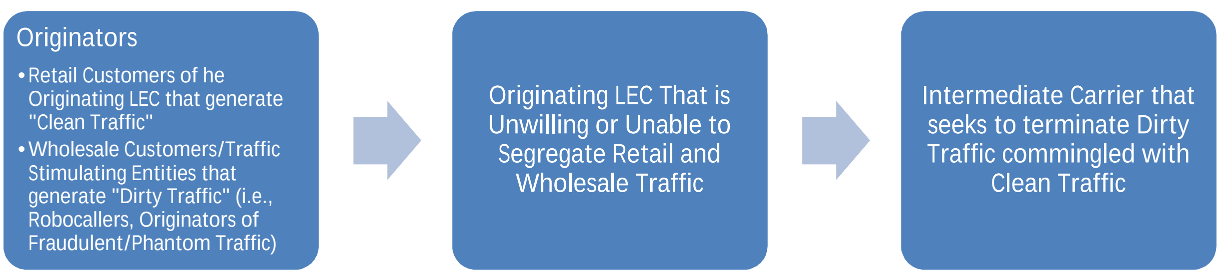
- In this scenario, Wireless Carriers do not generate any originating access charges. In fact, the originating traffic typically generates additional costs, but no additional revenues.

**Originating Traffic Stimulation Schemes: Example 1**




- Originating LECs also stand to profit from serving customers that generate high volumes of outbound traffic. Originating LECs may or may not share revenue generated by access charges and other revenue sources. They do, however, almost always share such revenues with the Originating LEC's Intermediate Carriers/IXCs.
- Critically, where Terminating Carriers do not charge terminating access fees (for example, Mobile Providers or Peering Arrangements), Originating LECs and the Intermediate Carriers/IXCs face no disincentives to originate as much traffic as possible, regardless of whether the traffic is legitimate, which means these carriers profit from robocalling, unwanted telemarketing calls, fraudulent traffic; and ghost traffic.

**Originating Traffic Stimulation Schemes: Example 2**




- In this example, the Originating LEC serves both retail customers that generate "Clean Traffic" (*i.e.*, Retail Traffic) and entities who are in the business of generating "Dirty Traffic" (*i.e.*, Wholesale Traffic). Again the Originating LEC may or may not share revenue generated by access and other charges with the entities that generate Dirty Traffic. Also the Intermediate Carrier/IXC and the Originating LEC still share the revenues generated by originating access and other charges.
- Where the Terminating Carriers do not charge terminating access fees (*e.g.*, Mobile Providers or Peering Arrangements), the Originating LEC and the Intermediate Carrier/IXC are motivated to generate as much traffic as possible, whether or not it is legitimate. Some of these carriers seek to disguise the nature of the traffic in order to make it easier to terminate without paying any fees to the terminating carrier (*e.g.*, masking interMTA traffic as local traffic). However, most of these carriers merely claim that they have no knowledge about, or ability to control, the nature of the traffic they seek to terminate.

The Commission will never be able to identify and eliminate all arbitrage and fraud under the framework of the existing PSTN. T-Mobile identified some forms of arbitrage and fraud above, but there are many, many other types of arbitrage, including, without limitation, international revenue share fraud, short stopping, re-origination, and double tandeming to name a few. In a competitive environment, carriers are always modifying their practices to gain maximum possible advantage. For example, before the Commission adopted bill-and-keep in the *Transformation Order*, LECs collected (or attempted to collect) reciprocal compensation for local calls. After the *Transformation Order*, some LECs with high volumes of local calls promptly assigned their homed numbers to other LECs so that they could continue to collect charges for the traffic by providing “transit” services to the same numbers. Additionally, some RBOCs chose not to build internal infrastructure because they can rely on competitive carriers to directly connect deep into their network. It has been a long standing argument that, if the traffic requires more than a DS1 to some distant end office, the competitive carrier has to pay (usually to an affiliated company of the LEC) to build to the end office carrier.

The reason all this arbitrage and fraud persists is that the current PSTN is inefficiently designed. No engineer would design a network to route traffic with 224 single points of failure. Although impossible to pinpoint all inefficiencies of today’s PSTN, a key inefficient component is the POI location. POI location is central to most disputes as companies position the POI to receive maximum revenue benefit, irrespective of the impact on network performance. RBOCs have benefited the most, but all carriers utilize the POI location whenever they can for their own financial benefit. By contrast, today’s Internet is an example of efficient network design because it facilitates beneficial redundancy and the routing of traffic in a way that is logical and neutral to both sides of the exchange. Accordingly, the Commission should directly address the underlying causes of arbitrage, including practices that violate the Commission's existing rules and outdated rate regulations, rather than restricting the choices of legitimate competitive carriers.

## III. Any Direct Connection Mandate Would Be Overbroad and Ill-Suited To Address Arbitrage And Network Efficiency Issues

CenturyLink has requested, and the FCC seeks comment on, whether the agency should go beyond its access stimulation proposal and require LECs to either accept a request for direct interconnection for the purpose of terminating access traffic or bear financial responsibility for the costs of receiving traffic from the point of interconnection.[24] Other carriers, including Peerless, have likewise requested that the Commission require direct connections for the exchange of traffic volumes above a certain threshold.[25] The Commission should reject any proposal to mandate a direct connection requirement because mandating direct connection would undermine the letter and the spirit of the law, and it would be extraordinarily bad policy.[26]

As T-Mobile and others have explained in past filings, a direct connection requirement would be irreconcilable with the plain language of Section 251(a) of the Communications Act, which gives competitive carriers the right to choose whether to interconnect directly or indirectly.[27] Courts and the FCC have consistently affirmed that competitive carriers can meet their interconnection obligations with indirect interconnection agreements.[28] While CenturyLink

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[24] In an *ex parte* filing, CenturyLink clarified that it proposes to have such a rule apply to any carrier providing retail voice services (including LECs, CMRS providers, and carriers working with interconnected VoIP providers) CenturyLink May 21 *Ex Parte* at 3.

[25] Peerless, et al. *Refresh-the-Record PN* Comments at 11.

[26] *See* S. Rep. No 104-230 (1996) (providing that Section 251 imposes obligations on LECs possessing market power, not competitive carriers) (*Telecommunications Act of 1996 Conference Report)*.

[27] 47 U.S.C. § 251(a)(1) ("General Duty of Telecommunications Carriers. Each telecommunications carrier has the duty (1) to interconnect directly ***or indirectly*** with the facilities and equipment of other telecommunications carriers; …") (emphasis added).

[28] *Iowa Network Servs., Inc. v. Qwest Corp*., 385 F. Supp. 2d 850, 859 (S.D. Iowa 2005) aff'd, 466 F.3d 1091 (8th Cir. 2006); see also *Connect America Fund; In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, First Report and Order, 11 FCC Rcd. 15499, 15991, ¶997 ("we

frames its proposal as a choice between direct or indirect interconnection,[29] given the financial obligations CenturyLink would impose on carriers that prefer indirect interconnection, there would not be, as a practical matter, any choice at all. Moreover, such a "choice" contravenes competitive carriers' right to make interconnection decisions based on what is technically or economically feasible.[30]

CenturyLink has suggested that the Commission may adopt its direct connection proposal under Sections 201, 251, and 332, of the Act, as the agency did to establish a bill-and-keep framework in the *Transformation Order*.[31] The carrier's reasoning is that a direct connection requirement is simply a means of implementing bill-and-keep, and therefore the Commission's authority is transferrable. In making this suggestion, CenturyLink misconstrues the Commission's actions in the *Transformation Order* and the underlying law.

The authority upon which the Commission relied to adopt bill-and-keep cannot be relied upon to ban indirect interconnection. The Commission's bill-and-keep rule establishes the rates that carriers may charge to exchange traffic, while the ban on indirect interconnection that CenturyLink advocates would prohibit one of the two means for interconnection that Congress

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find that indirect connection … satisfies a telecommunications carrier's duty to interconnect pursuant to 251(a)" and "direct interconnection . . . is not required under section 251(a)" for competitive carriers) (*First Report and Order*); *First Report and Order* at 16171, ¶1408 ("We decide that competitive telecommunications carriers that have the obligation to interconnect with requesting carriers may choose, based upon their own characteristics, whether to allow direct or indirect interconnection."); *A National Broadband Plan for Our Future; Establishing Just and Reasonable Rates for Local Exchange Carriers; High-Cost Universal Service Support; Developing an Unified Intercarrier Compensation Regime; Federal-State Joint Board on Universal Service; Lifeline and Link-Up; Universal Service Reform – Mobility Fund*, WC Docket Nos. 10-90, 07-135, 05-337, 03-109; GN Docket No. 09-51; CC Docket Nos. 01-92 and 96-45; WT Docket No. 10-208, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, 17952, ¶840 ("…in response to a request by an incumbent LEC for interconnection under section 20.11(e), CMRS providers are not required to enter into direct interconnection, and may instead satisfy their obligation to interconnect through indirect arrangements.") (*Transformation Order*).

[29] *See* CenturyLink May 21 *Ex Parte* at 5.

[30] The Act affords competitive carriers the right to make interconnection decisions "based upon the most efficient technical and economic choices." *Iowa Network Servs., Inc. v. Qwest Corp.*, 385 F. Supp. 2d 850, 859 (S.D. Iowa 2005), *aff'd* 466 F.3d 1091 (8th Cir. 2006).

[31] CenturyLink May 21 *Ex Parte* at 4.

explicitly guaranteed for competitive (*i.e.*, non-ILEC) carriers in the Act. As the Supreme Court held in *Iowa Utilities Board* and the Commission reiterated in the *Transformation Order*, "the Act means what it says: The FCC has rulemaking authority to carry out the provisions of this Act…"[32] One such provision is Section 251(a), which explicitly and unambiguously provides competitive carriers—not ILECs—with the right to choose whether to connect indirectly or directly with other carriers. The Commission cannot interpret away the Act's plain meaning at the request of CenturyLink, Peerless or anyone else.

Peerless and others have also incorrectly claimed that the Commission may use its authority under Section 201 of the Act to impose a direct connection requirement on competitive carriers.[33] Section 201(a) requires common carriers to furnish communications services "upon reasonable request" and "establish physical connections with other carriers" where the Commission finds it in the public interest.[34] Section 201(b) prohibits unjust and unreasonable rates, practices, classifications, and regulations and likewise grants the Commission authority to use its authority under that section when the public interest necessitates.[35] Because the Act explicitly and unambiguously grants competitive carriers the right to interconnect indirectly with other carriers, the choice by a competitive carrier to interconnect indirectly could not constitute an unjust or unreasonable practice that the Commission could ban by mandating direct interconnection.

Peerless claims that its position is supported by an alleged conclusion in a "*CMRS Interconnection Order*" that the Commission may compel competitive carriers to interconnect

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32 *Transformation Order* at ¶832.

33 CenturyLink May 21 *Ex Parte* at 4.

34 47 U.S.C. § 201(a).

35 47 U.S.C. § 201(b).

directly.[36] However, no such "*CMRS Interconnection Order*" exists: the document Peerless references throughout its filings is actually an NPRM that the Commission published before Congress adopted the 1996 Act (including Section 251), which superseded the NPRM.[37] If that were not bad enough, rather than concluding as Peerless claims that the FCC may compel competitive carriers to interconnect directly, the NPRM actually warns that LEC-owned or affiliated CMRS providers should not deny interconnection for the purpose of keeping CMRS-to-CMRS traffic interconnected through the LEC's landline network, which supports T-Mobile's practices and Safe Harbor POI Solution Proposal. Therefore, the plain language of the Act and the FCC's precedent make clear that the Commission lacks the authority to adopt the position advocated by Peerless despite the misleading claims by Peerless to the contrary.

CenturyLink similarly seeks to flip the intent of the Act and the Commission's rules on its head. Without offering any legal, policy, or market-based justification, CenturyLink argues that, "just as CMRS providers in the late 1990s contended that they should be free to choose the most efficient manner of interconnection with ILECs, so too IXCs should be free to do so as well…"[38] CenturyLink conveniently ignores the conclusion by Congress that competitive carriers and non-ILEC affiliated CMRS providers need the right to choose the most efficient means of interconnection, and that Congress enshrined this right (along with several other measures intended to level the playing field between incumbents and their competitors) in the Act.

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36 Peerless, et al. *Refresh-the-Record PN* Comments at 21; Letter from John Barnicle, President and CEO, Peerless, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 10-90 & 07-135, CC Docket No. 01-92 at 5 (dated March 15, 2018).

37 *Interconnection and Resale Obligations Pertaining to Commercial Mobile Radio Services*, Second Notice of Proposed Rulemaking, 10 FCC Rcd. 10666 (1995) (*CMRS Interconnection NPRM*).

38 CenturyLink May 21 *Ex Parte* at 6.

The legislative history of the Act confirms the straightforward intent of the plain language of the Act to provide competitive carriers—not ILECs or IXC affiliates of the ILECs—with the right to choose whether to interconnect directly or indirectly.[39] Specifically, Congress adopted Section 251 to prevent incumbents from interfering with the business decisions of competitive carriers about where and how to interconnect. In fact, Congress expressly contemplated and rejected the idea of requiring any carrier that requests interconnection with a LEC to bear all of the costs of the requested interconnection.[40] CenturyLink nonetheless asks the Commission to ignore both the plain language of the Act and its legislative history to provide it and other ILECs (and their affiliates) the right to require direct interconnection over the objection of the competitive carrier. The Commission should reject this misconstruction of Congressional intent, particularly where, as here, Congress considered and rejected the very proposal being advocated.

Even if the law permitted the Commission to mandate direct connection, it would be extraordinarily unwise to do so: mandating direct interconnection would harm the public by undermining competition and exacerbating the existing deficiencies of the PSTN.[41] The PSTN requires nearly all traffic to flow through ILECs, even when it is not originated by or destined for ILEC customers, which gives the ILECs artificial leverage over other carriers and outsized control over the network. The lasting, detrimental impact of this defect cannot be overstated. Forcing traffic to flow through ILECs harms the public interest by: (a) ensuring that the network

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39 *See Telecommunications Act of 1996 Conference Report* supra note 25.

40 *See* 141 Cong. Rec. H8427 (daily ed. August 4, 1995) (showing that a previous House version of the 1996 Act included a subsection that was later stricken entitled "User Payment of Costs" that prescribed users of interconnection to bear the cost of such interconnection); 141 Cong. Rec. H8427 (daily ed. August 4, 1995) (statement of Rep. Hastert) (clarifying that for purposes of the bill under consideration, "user" was the corporation requesting interconnection with a LEC.)

41 *See generally United States v. American Tel. & Tel. Co.*, 552 F. Supp. 131 (1982).

topography is unnecessarily costly; (b) creating more opportunities for call failures; and (c) multiplying the opportunities for intercarrier disputes that require time, resources, and capital that would otherwise be allocated to network investments. CenturyLink's proposal would make these problems worse by forcing carriers to replicate the existing network topography and its inefficiencies, creating yet another barrier to the IP transition.

In any event, imposing a direct connection obligation would just lead to new forms of arbitrage. For example, a classic game of direct connection arbitrage that has existed forever involves carriers using existing affiliates (or creating new affiliates) to avoid direct connection costs. Bearing this in mind, the FCC should make clear that any rules it adopts as a result of these proceedings treat all of a carrier's affiliates as a part of the carrier itself.

For these reasons, the Commission should facilitate the transition to an IP network designed according to engineering principles. T-Mobile developed its "Safe Harbor POI Solution" with this in mind. T-Mobile's proposal calls for the establishment of no more than eight to ten POIs across the nation where all service providers could interconnect directly or indirectly with all other service providers.[42] This approach seeks to promote workable, lasting principles for network management that prioritize the public interest, and it would permanently resolve many of the problems raised in this proceeding. By contrast, the self-serving proposals to mandate direct connections would merely make the problems worse by forcing competitive carriers to build inefficiently into the networks of the ILECs and subsidize their facility costs, while making it harder to fight robocalling, spoofing, fraud and other harmful practices.

[42] *See generally, e.g.*, Comments of T-Mobile USA, Inc., WC Docket Nos. 10-90 & 07-135; CC Docket No. 01-92 (filed Oct. 26, 2017) (urging the FCC to adopt T-Mobile's Safe Harbor POI Solution), a copy of which is attached hereto as Appendix A.

## IV. Past ICC Reforms Have Both Benefitted the Public Interest and Paved the Way for the Abuses the FCC Seeks to Eliminate in This Proceeding

This proceeding represents a prime opportunity to address the shortcomings of past ICC reform. The initial rules that the FCC adopted in 2011 were well-intentioned, but not sufficient to overhaul the ICC system and facilitate the IP transition. The *Transformation Order* rightly recognized bill-and-keep as the appropriate model for terminating access and T-Mobile supports bill-and-keep as the ultimate end state for a modern ICC regime. However, bill-and-keep is not a one-size-fits-all solution for ICC reform because as applied to the PSTN, bill-and-keep creates incentives for arbitrage. Bill-and-keep rewards carriers for originating as much traffic as possible without regard for the integrity of that traffic and whether it harms the public interest or the network. Therefore, phantom traffic and robocalls are passed through the network unchecked. The current rules also create disincentives for carriers to modernize their networks to ensure the traffic they originate or transport is legitimate—further stalling the IP transition. Rather than making forward progress on this issue, the *NPRM* unfortunately continues a long line of decisions that attempt to treat the symptoms of an outdated PSTN and flawed underlying ICC system. The public interest would be far better served by directly addressing the underlying causes of arbitrage than by playing the whack-a-mole game of addressing the symptoms of arbitrage.

The practices that the Commission has cited in the *NPRM* are either fraud (e.g., manipulating charges) or arbitrage (*i.e.*, taking advantage of the existing rules for a party's interest in a manner that is inconsistent with the purposes for the rules and that damages the public interest).[43] For example, daisy chaining is outright fraud. The purpose of the fraud is to

[43] *See Access Arbitrage NPRM* at ¶32.

tack on charges that would not otherwise exist (and do not need to exist) in order to charge more for terminating the same traffic. The Commission can and should stop these types of fraud, but it should do so by enforcing the current rules against the few bad actors rather than adopting new rules that negatively impact everyone. Similarly, harmful arbitrage should be addressed, but by addressing practices on an individual basis rather than reforming the intercarrier compensation system, which tends to create winners and losers and shift the arbitrage rather than ending it. T-Mobile's "safe harbor" proposal seeks to treat the diseased PSTN by creating incentives for the connection of the PSTN through neutral locations, and the Commission should consider its adoption as a better means for addressing the fraud and arbitrage it seeks to end.

## V. <u>Conclusion</u>

For the reasons set forth above, the Commission should seek to eliminate arbitrage and fraud within the ICC system that harm consumers by directly addressing the underlying causes of the arbitrage and fraud. In addressing arbitrage and fraud, the Commission should recognize the motive and opportunity for intermediate access providers on the originating side to exploit the rules and reject ILECs' self-serving calls for a broad direct connection requirement. Moreover, as the Commission considers the instant *NPRM* and ICC reform generally, it should strive to avoid duplicating pasts network failures and accelerate the stalled IP transition to deliver a network that is responsive to the needs of consumers first and foremost.

Respectfully submitted,

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